

6.

$$\begin{array}{r} 5x = 3x + 8 \\ -3x \quad -3x \end{array}$$

2r

$$2x = 8$$

$$x = 4$$

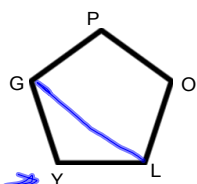
6-1 Polygons

polygon--plane figure, formed by 3 or more segments that intersect at their endpoints

Sides--segments

GP

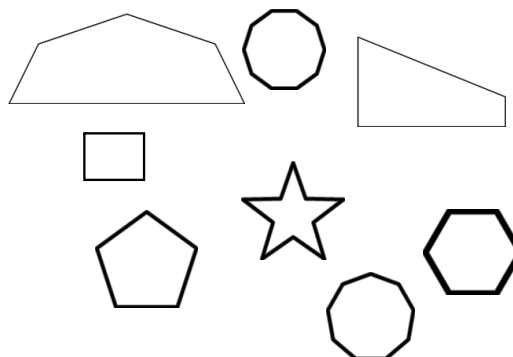
Vertex--endpoints

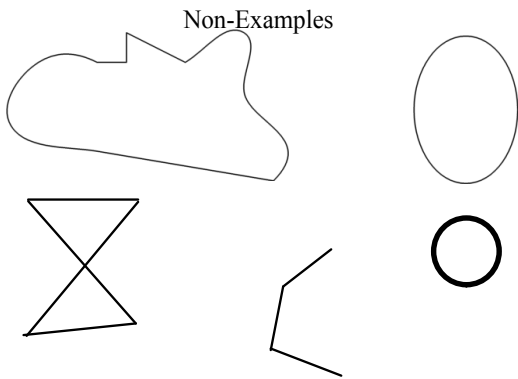


Diagonal--Segment that joins 2 nonconsecutive vertices


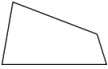


Name the polygon GYLOP POLYG

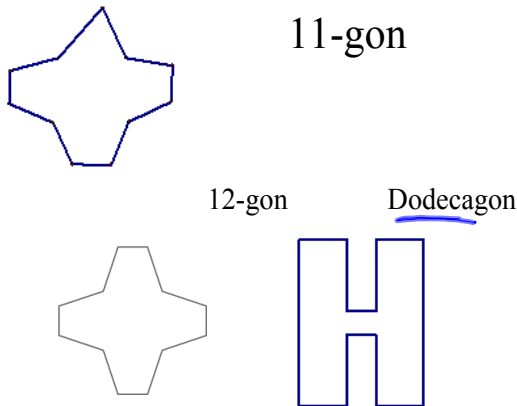
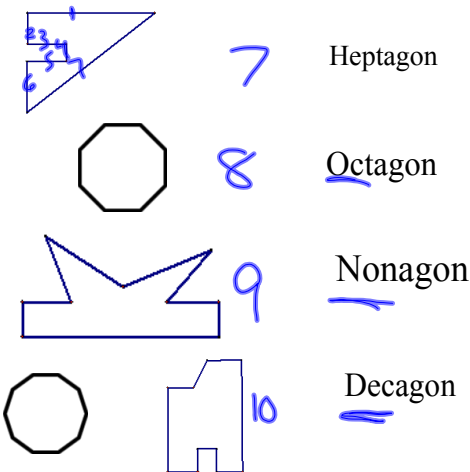
Examples of Polygons



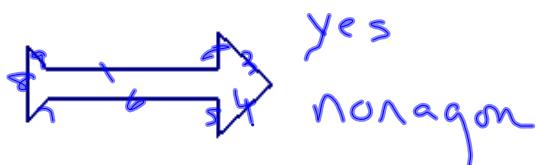


Types of Polygons

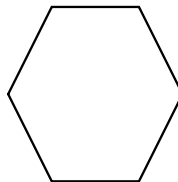
Shape	# of sides	Name
	3	Triangle
	4	Quadrilateral
	5	Pentagon
	6	Hexagon



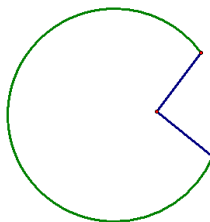
Is the figure a polygon?
If so, what type?



Is the figure a polygon?
If so, what type?

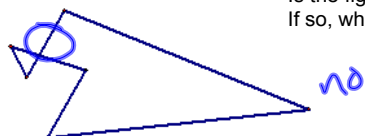


yes hexagon

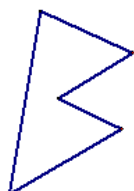


no

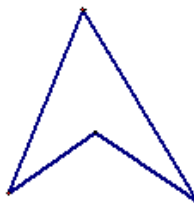
Is the figure a polygon?
If so, what type?



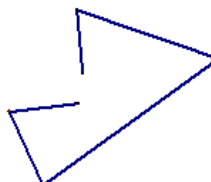
yes
pentagon



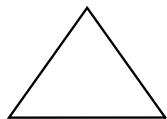
Is the figure a polygon?
If so, what type?



yes
quadrilateral

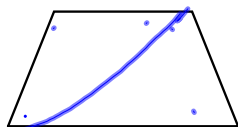


no



How many degrees are there in a triangle?

180°



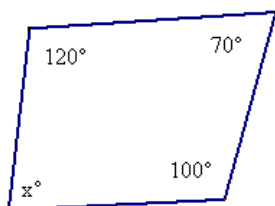
How many triangles?

2

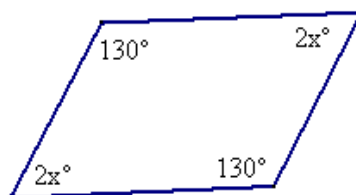
So, how many degrees?

360°

Theorem 6.1--Quadrilateral Interior angles Theorem--The sum of the measures of the interior angles of a quadrilateral is 360.

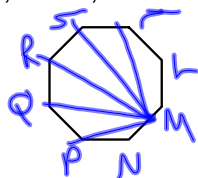


$$\begin{aligned} x + 100 + 70 + 120 &= 360 \\ x + 290 &= 360 \\ x &= 70 \end{aligned}$$



$$\begin{aligned} (2x) + 130 + (2x) + 130 &= 360 \\ 4x + 260 &= 360 \\ 4x &= 100 \quad (x = 25) \end{aligned}$$

Extended day class work
p306-307
8-10, 16-19, 21-23



$$\begin{aligned}90 + 60 + 150 + 3x &= 360 \\300 + 3x & \\3x &= 60 \\x &= 20\end{aligned}$$

HW
p306-307
8-23